



Community and Economic Development

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Proposed 2012 International Building Code Local Amendments

105.2 Work exempt from permit. Exemptions from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. *Permits* shall not be required for the following:

Building:

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area is not greater than ~~420~~ 200 square feet (11 ~~18.58~~ ² m²).
2. Fences not over ~~7~~ 6 feet (~~2134 mm~~ 1829 mm) high.
3. Oil derricks.
4. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II or IIIA liquids.
5. Water tanks supported directly on grade if the capacity is not greater than 5,000 gallons (18 925 L) and the ratio of height to diameter or width is not greater than 2:1.
6. Platforms, sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade, and not over any basement or *story* below and are not part of an *accessible route*.
7. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
8. Temporary motion picture, television, and theater stage sets and scenery.
9. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than ~~24~~ 18 inches (610 mm) deep.
10. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.
11. Swings and other playground equipment accessory to detached one- and two-family *dwelling*s.
12. Window awnings in Group R-3 and U occupancies, supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.
13. Non-fixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height.

14. Re-roofing with the same type of material as the original roofing and provided not more than two layers of asphalt shingles are applied over an existing asphalt shingle roof.

15. Installation of a nonstructural weatherproof exterior covering over an existing weatherproof covering on an existing structure so long as the new covering will not affect the fire-resistive classification of the existing structure.

Exception: Installation of an Exterior Insulation and Finish System (EIFS).

SECTION 202

DEFINITIONS

PERSONAL CARE SERVICE ~~The care of persons who do not require medical care. Personal care involves responsibility for the safety of persons while inside the building.~~ Assistance with activities of daily living that can be performed by persons without professional skills or professional training and includes the coordination or provision of intermittent nursing services and administration of medications or treatments.

SUPERVISORY CARE SERVICE General supervision, including daily awareness of resident functioning and continuing needs.

DIRECTED CARE SERVICE Care of residents, including personal care services, who are incapable of recognizing danger, summoning assistance, expressing need, or making basic care decisions.

ASSISTED LIVING FACILITY A residential care institution, including adult foster care, that provides or contracts to provide supervisory care services, personal care services or directed care services on a continuing basis.

ASSISTED LIVING CENTER An assisted living facility that provides resident rooms or residential units to eleven or more residents.

ASSISTED LIVING HOME An assisted living facility that provides resident rooms to ten or fewer residents.

SECTION 308

INSTITUTIONAL GROUP I

308.3 Institutional Group I-1. This occupancy shall include buildings, structures or portions thereof for more than 16 persons who reside on a 24 hour basis in a supervised environment, ~~and receive custodial care, and The persons receiving care are capable of self-preservation, except as provided for assisted living centers.~~ This group shall include, but not be limited to, the following:

- Alcohol and drug centers
- ~~Assisted living facilities~~ centers
- Congregate care facilities
- Convalescent facilities
- Group homes

Halfway houses
Residential board and *custodial care* facilities
Social rehabilitation facilities

308.3.2 Six to sixteen persons receiving care. A facility such as above, housing not fewer than six and not more than 16 persons receiving such care, shall be classified as Group R-4, except as provided for assisted living homes.

308.4 Institutional Group I-2. This occupancy shall include buildings and structures used for *medical care* on a 24-hour basis for more than five persons who are *incapable of self-preservation*. This group shall include, but not be limited to, the following:

Foster care facilities
Detoxification facilities
Hospitals
Nursing homes
Assisted Living Centers
Psychiatric hospitals

~~**308.4.1 Five or fewer persons receiving care.** A facility such as the above with five or fewer persons receiving such care shall be classified as Group R-3 or shall comply with the *International Residential Code* provided an automatic sprinkler system is installed in accordance with Section 903.3.1.3 or with Section P2904 of the *International Residential Code*.~~

SECTION 310

RESIDENTIAL GROUP R

310.2 Definitions The following terms are defined in Chapter 2:

ASSISTED LIVING FACILITY
ASSISTED LIVING CENTER
ASSISTED LIVING HOME
BOARDING HOUSE
CONGREGATE LIVING FACILITIES.
DIRECTED CARE SERVICES
DORMITORY
GROUP HOME
PERSONAL CARE SERVICE
SUPERVISORY CARE SERVICES
TRANSIENT

310.5.1 Care facilities within a dwelling. Licensed care facilities for five 10 or fewer persons receiving care that are within a single-family dwelling are permitted, to comply with the *International Residential Code* provided an automatic sprinkler system is installed in accordance with Section 903.1.3 or Section P2904 of the *International Residential code* provided that the requirements of Section 425 of this code are met.

310.6 Residential Group R-4. This occupancy shall include buildings, structures or portions thereof for more than five but not more than 16 persons, excluding staff, who reside on a 24-hour basis in a supervised residential environment and receive *custodial care*. The persons receiving care are capable of self-preservation, except as provided for *assisted living homes*. This group shall include, but not be limited to, the following:

Alcohol and drug centers

Assisted living ~~facilities~~ homes

Congregate care facilities

Convalescent facilities

Group homes

Halfway houses

Residential board and *custodial care* facilities

Social rehabilitation facilities

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code and Section 425.

310.6.1. Condition 1. This occupancy condition shall include facilities licensed to provide supervisory care services, in which occupants are capable of self-preservation by responding to an emergency situation without physical assistance from staff. Condition facilities housing more than 10 persons shall be classified as Group I-2

310.6.2 Condition 2. This occupancy condition shall include facilities licensed to provide personal or directed care services, in which occupants are incapable of self-preservation by responding to an emergency situation without physical assistance from staff. Condition 2 facilities housing more than 10 persons shall be classified as Group I-2.

SECTION 425

ASSISTED LIVING HOMES

425.1 Applicability. The provisions of this section shall apply to a building or part thereof housing not more than 10 persons, excluding staff, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment, which provides licensed care services. Except as specifically required by this division, R-4 occupancies shall meet all the applicable provisions of Group R-3.

425.2 General. Building or portions of buildings classified as R-4 may be constructed of any materials allowed by this code, shall not exceed two stories in height nor be located above the second story in any building and shall not exceed two thousand square feet above the first story, except as provided in Section 506.

425.3 Special Provisions. R-4 occupancies having more than 2000 square feet above the first story shall be of not less than one-hour fire-resistive construction throughout.

425.3.1 Mixed Uses. R-4 occupancies shall be separated from other occupancies as provided in Table 508.4.

425.4 Access and Means of Egress Facilities

425.4.1 Accessibility. R-4 occupancies shall be provided with at least one accessible route as provided in Section 1104.1.

425.4.2 Exits

425.4.2.1 Number of Exits. Every story, basement, or portion thereof shall have not less than two exits.

Exception: Basements and stories above the first floor containing no sleeping rooms used by residents may have only one means of egress as provided in Chapter 10.

425.4.2.2 Distance to Exits. The maximum travel distance shall comply with Section 1016, except that the maximum travel distance from the center point of any sleeping room to an exit shall not exceed 75 feet.

425.4.2.3 Emergency Exit Illumination. In event of a power failure, exit illumination shall be automatically provided from an emergency system powered by storage batteries or an onsite generator set installed in accordance with the International Electric Code.

425.4.2.4 Emergency Escape and Rescue. R-4 occupancies shall comply with the requirements of Section 1029, except that Exception #1 to 1029 does not apply to R-4 occupancies.

425.4.2.5 Delayed Egress Locks. In R-4 Condition 2 occupancies, delayed egress locks shall be permitted in accordance with 1008.1.9.7, Items 1, 2, 4, 5, and 6.

425.5 Smoke Alarms and Sprinkler Systems.

425.5.1 Smoke Alarms. R-4 occupancies shall be provided with smoke alarms installed in accordance with 907.2.11.2, and such alarms shall be installed in all habitable rooms.

425.5.2 Sprinkler Systems. R-4 occupancies shall be provided with a sprinkler system installed in accordance with 903.3.1.3. Sprinkler systems installed under this section shall be installed throughout, including attached garages, and in Condition 2 facilities, shall include concealed spaces of or containing combustible materials. Such systems may not contain unsupervised valves between the domestic water riser control valve and the sprinklers. In Condition 2 occupancies, such systems shall contain water flow switches electrically supervised by an approved supervising station, and shall sound an audible signal at a constantly attended location.

1204.1 Equipment and systems. Habitable spaces Interior spaces intended for human occupancy shall be provided with active or passive space-heating and space-cooling systems capable of maintaining a minimum indoor temperatures between 70 of 68°F (201°C) and 90°F (32°C) at a point 3 feet (914 mm) above the floor on the design heating day. The installation of portable space heaters or coolers shall not be used to achieve compliance with this section.

Exception: Space heating and cooling systems are not required for interior spaces where the primary purpose of the space is not associated with human comfort.

1612.3 Establishment of flood hazard areas. To establish *flood hazard areas*, the applicable governing authority shall adopt a flood hazard map and supporting data. The flood hazard map shall include, at a minimum, areas of special flood hazard as identified by the Federal Emergency Management Agency in an engineering report entitled "The Flood Insurance Study for [INSERT NAME OF JURISDICTION]," dated Maricopa County, Arizona and Incorporated Areas [INSERT DATE OF ISSUANCE], revised on July 19, 2001, as amended or revised with the accompanying Flood Insurance Rate Map (FIRM) and Flood Boundary and Floodway Map (FBFM) and related supporting data along with any revisions thereto. The adopted flood hazard map and supporting data are hereby adopted by reference and declared to be part of this section.

1607.2 Loads not specified.

Table 1607.1

MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS, L_o , AND MINIMUM CONCENTRATED LIVE LOADS⁹

OCCUPANCY OR USE	UNIFORM (psf)	CONCENTRATED (lbs.)
25. Residential		-
One- and two-family dwellings		
Uninhabitable attics with storage ^{i,j,k}	20 <u>40</u>	
Habitable attics and sleeping areas ^k (no other changes in item 25)	30 <u>40</u>	

2106.1 Seismic design requirements for masonry. Masonry structures and components shall comply with the requirements in section 1.18 of TMS 402/ACI 530/ASCE 5 depending on the structure's seismic design category. All new masonry elements, regardless of seismic design category, shall meet the following minimum reinforcement requirements:

1. Connections to columns shall comply with Section 1.18.4.3.2.1 of TMS 402/ACI 530/ASCE 5.

2. Vertical wall reinforcement of at least 0.20 square inch (130 mm²) in cross-sectional area shall be provided continuously from support to support at each corner, at each side of each opening, at the ends of walls and at maximum spacing of 4 feet (1219 mm) apart horizontally throughout the wall.

3. Horizontal wall reinforcement not less than 0.20 square inch (130 mm²) in cross-sectional area shall be provided (1) at the bottom and top of wall openings and extend not less than 24 inches (610 mm) or less than 40 bar diameters past the opening, (2) continuously at structurally connected roof and floor levels and at the top of walls, (3) at the bottom of walls or in the top of foundations when doweled in walls, and (4) at maximum spacing of 10 feet (3048 mm) unless uniformly distributed joint reinforcement is provided.

4. Where anchor bolts are used to connect horizontal elements to the tops of columns, anchor bolts shall be placed within lateral ties. Lateral ties shall enclose both the vertical bars in the column and the anchor bolts. There shall be a minimum of two No. 4 (M #13) or three No. 3 (M #10) in the top 5 inches (127 mm) of the column.

SECTION 3109

SWIMMING POOL ENCLOSURES AND SAFETY DEVICES

DELETE section in its entirety

Proposed 2012 International Building Code

Appendix M

Local Amendment

SOLAR PHOTOVOLTAIC POWER SYSTEMS

SECTION AM101

SOLAR PHOTOVOLTAIC POWER SYSTEMS

AM101 Installation of solar photovoltaic power systems. Solar photovoltaic power systems shall be installed in accordance with Sections AM101 through AM101.4, the *International Building Code* and NFPA 70.

Exception: Detached, non-habitable Group U structures including, but not limited to, parking shade structures, carports, solar trellises and similar structures shall not be subject to the requirements of this section.

AM101.1 Marking. Marking is required on interior and exterior direct -current (DC) conduit, enclosures, raceways, cable assemblies, junction boxes, combiner boxes and disconnects.

AM101.1.1 Materials. The materials used for marking shall be reflective, weather resistant and suitable for the environment. Marking as required in Sections AM101.1.2 through AM101.1.4 shall have all letters capitalized with a minimum height of 3/8 inch (9.5 mm) white on red background.

AM101.1.2 Marking content. The marking shall contain the words "WARNING: PHOTOVOLTAIC POWER SOURCE."

AM101.1.3 Main service disconnect. The marking shall be placed adjacent to the main service disconnect in a location clearly visible from the location where the disconnect is operated.

AM101.1.4 Location of marking. Marking shall be placed on interior and exterior DC conduit, raceways, enclosures and cable assemblies every 10 feet (3048 mm), within 1 foot (305 mm) of turns or bends and within 1 foot (305 mm) above and below penetrations of roof/ceiling assemblies, walls or barriers.

AM101.2 Locations of DC conductors. Conduit, wiring systems, and raceways for photovoltaic circuits shall be located as close as possible to the ridge or hip or valley and from the hip or valley as directly as possible to an outside wall to reduce trip hazards and maximize ventilation opportunities. Conduit runs between sub arrays and to DC combiner boxes shall be installed in a manner that minimizes the total amount of conduit on the roof by taking the shortest path from the array to the DC combiner box. The DC combiner boxes shall be located such that conduit runs are minimized in the pathways between arrays. DC wiring shall be installed in metallic conduit or raceways when located within enclosed spaces in a building. Conduit shall run along the bottom of load bearing members.

AM101.3 Access and pathways. Roof access, pathways, and spacing requirements shall be provided in accordance with Sections AM101.3.1 through AM101.3.3.3.

Exceptions:

1. Residential structures shall be designed so that each photovoltaic array is no greater than 150 feet (45 720 mm) by 150 feet (45 720 mm) in either axis.
2. Panels/modules shall be permitted to be located up to the roof ridge where an alternative ventilation method approved by the fire chief has been provided or where the fire chief has determined vertical ventilation techniques will not be employed.

AM101.3.1 Roof access points. Roof access points shall be located in areas that do not require the placement of ground ladders over openings such as windows or doors, and located at strong points of building construction in locations where the access point does not conflict with overhead obstructions such as tree limbs, wires, or signs.

AM101.3.2 Residential systems for one- and two- family dwellings. Access to residential systems for one- and two-family dwellings shall be provided in accordance with Sections AM101.3.2.1 through AM101.3.2.4.

AM101.3.2.1 Residential buildings with hip roof layouts. Panels/modules installed on residential buildings with hip roof layouts shall be located in a manner that provides a 3-foot-wide (914 mm) clear access pathway from the eave to the ridge on each roof slope where panels/modules are located. The access pathway shall be located at a structurally strong location on the building capable of supporting the live load of fire fighters accessing the roof.

Exception: These requirements shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

AM101.3.2.2 Residential buildings with a single ridge. Panels/modules installed on residential buildings with a single ridge shall be located in a manner that provides two, 3-foot-wide (914 mm) access pathways from the eave to the ridge on each roof slope where panels/modules are located.

Exception: This requirement shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

AM101.3.2.3 Residential buildings with roof hips and valleys. Panels/modules installed on residential buildings with roof hips and valleys shall be located no closer than 18 inches (457 mm) to a hip or a valley where panels/modules are to be placed on both sides of a hip or valley. Where panels are to be located on only one side of a hip or valley that is of equal length, the panels shall be permitted to be placed directly adjacent to the hip or valley.

Exception: These requirements shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

AM101.3.2.4 Residential building smoke ventilation. Panels/modules installed on residential buildings shall be located no higher than 3 feet (914 mm) below the ridge in order to allow for fire department smoke ventilation operations.

AM101.3.3 Other than residential buildings. Access to systems for occupancies other than one- and two family dwellings shall be provided in accordance with Sections AM101.3.3.1 through AM101.3.3.3.

Exception: Where it is determined by the *building code official* that the roof configuration is similar to that of a one- or two-family dwelling, the residential access and ventilation

requirements in Sections AM101.3.2.1 through AM101.3.2.4 shall be permitted to be used.

AM101.3.3.1 Access. There shall be a minimum 6-1 foot-wide (1829 mm) clear perimeter around the edges of the roof.

Exception: Where either axis of the building is 250 feet (76 200 mm) or less, there shall be a minimum 4-foot-wide (1290 mm) clear perimeter around the edges of the roof.

AM101.3.3.2 Pathways. The solar installation shall be designed to provide designated pathways. The pathways shall meet the following requirements:

1. The pathway shall be over areas capable of supporting the live load of fire fighters accessing the roof.
2. The centerline axis pathways shall be provided in both axes of the roof. Centerline axis pathways shall run where the roof structure is capable of supporting the live load of fire fighters accessing the roof.
3. Shall be a straight line not less than 4 feet (1290 mm) clear to skylights or ventilation hatches.
4. Shall be a straight line not less than 4 feet (1290 mm) clear to roof standpipes.
5. Shall provide not less than 4 feet (1290 mm) clear around roof access hatch with at least one not less than 4 feet (1290 mm) clear pathway to parapet or roof edge.

AM101.3.3.3 Smoke ventilation. The solar installation shall be designed to meet the following requirements:

1. Arrays shall be no greater than 150 feet (45 720 mm) by 150 feet (45 720 mm) in distance in either axis in order to create opportunities for fire depm1ment smoke ventilation operations.
2. Smoke ventilation options between array sections shall be one of the following:
 - 2.1. A pathway 8 feet (2438 mm) or greater in width.
 - 2.2. A 4-foot (1290 mm) or greater in width pathway and bordering roof skylights or smoke and heat vents.
 - 2.3. A 4-foot (1290 mm) or greater in width pathway and bordering 4-foot by 8-foot (1290 mm by 2438 mm) "venting cutouts" every 20 feet (6096 mm) on alternating sides of the pathway.

AM101.4 Ground-mounted photovoltaic arrays. Ground-mounted photo voltaic arrays shall comply with Sections AM101 through AM101.2 and this section. Setback requirements shall not apply to ground-mounted, free-standing photovoltaic arrays. A clear, brush-free area of 10 feet (3048 mm) shall be required for ground mounted photovoltaic arrays.

Proposed 2012 International Residential Code Local Amendments

R105.2 Work exempt from permit. Permits shall not be required for the following. Exemption from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

Building:

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area is not greater than 200 square feet (18.58 m²). Detached wood framed accessory structures not greater than 200 square feet (18.58 m²) that do not have solid framed roof systems such as pergolas and lattices covers are also exempt.
2. Fences not over ~~7~~ 6 feet (~~2134 mm~~ 1829 mm) high.
3. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge
4. Water tanks supported directly on grade if the capacity is not greater than 5,000 gallons (18 925 L) and the ratio of height to diameter or width is not greater than 2:1.
5. Sidewalks and driveways.
6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
7. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than ~~24~~ 18 inches (610 mm) deep.
8. Swings and other playground equipment.
9. Window awnings supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.
10. Decks not exceeding 200 square feet (18.58 m²) in area, that are not more than 30 inches (762 mm) above grade at any point, are not attached to a dwelling and do not serve the exit door required by Section R311.4.
11. Hot water re-circulators
12. Water Softeners and Soft Water Loops
13. Replacement of existing water heaters previously installed with a valid building permit
14. Re-roofing with the same type of material as the original roofing and provided not more than two layers of asphalt shingles are applied over an existing asphalt shingle roof.
14. Installation of a nonstructural weatherproof exterior covering over an existing weatherproof covering on an existing structure so long as the new covering will not affect the fire-resistive classification of the existing structure.

Exception: Installation of an Exterior Insulation and Finish System (EIFS).

R301.2 Climatic and geographic design criteria. Buildings shall be constructed in accordance with the provisions of this code as limited by the provisions of this section. Additional criteria shall be established by the local jurisdiction and set forth in Table R301.2(1).

Table R301.2(1)

(Due to space limitations the table could not be reproduced; only the values are listed)

Ground snow load: 0

Wind speed (mph): 90 Exposure B (unless otherwise designated by the Building Official)

Seismic design category: B

Weathering: Negligible

Frost line depth: 0"

Termite: Moderate to heavy

Decay: None to slight

Winter design temperature: 32°F

Ice shield underlayment required: N/A

Flood hazards: MCFC

Air freezing index: 0

Mean annual temperature: 72.3°F

R301.5 Live Load.

The minimum uniformly distributed live load shall be as provided in Table R301.5

TABLE R 301.5

MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS (in pounds per square foot)

USE	LIVE LOAD
Attics with storage ^{b,g}	20 <u>40</u>
Sleeping rooms	30 <u>40</u>

(No other changes to Table)

SECTION R302

FIRE-RESISTANT CONSTRUCTION

R302.1 Exterior Walls. Construction, projections, openings and penetrations of exterior walls of dwellings and accessory buildings shall comply with Table R302.1(1); or dwellings equipped throughout with an automatic sprinkler system installed in accordance with Section P2904 shall comply with Table R302.1(2).

Exceptions:

1. Walls, projections, openings or penetrations in walls perpendicular to the line used to determine the fire separation distance.
2. Walls of dwellings and accessory structures located on the same lot.
3. Detached tool sheds and storage sheds, playhouses and similar structures exempted from permits are not required to provide wall protection based on location on the lot. Projections beyond the exterior wall shall not extend over the lot line.
4. Detached garages accessory to a dwelling located within 2 feet (610 mm) of a lot line are permitted to have roof eave projections not exceeding 4 inches (102 mm)
5. Foundation vents installed in compliance with code are permitted
6. When the wall is at 5' or greater to the property line, with no attic vents or gable end vents, a maximum of 18" unprotected eave overhang is permitted.

R302.5 Dwelling/garage opening/penetration protection.

R302.5.1 Opening protection. Openings from a private garage or carport directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage or carport and residence shall be equipped with solid wood doors not less than $1 \frac{3}{8}$ inches (35 mm) in thickness, solid or honeycomb-core steel doors not less than $1 \frac{3}{8}$ inches (35 mm) thick, or 20-minute fire-rated doors, equipped with a self-closing, self latching device.

R302.6 Dwelling/garage fire separation.

Table R302.6 Dwelling/Garage Separation

SEPARATION	MATERIAL
From the residence attics	<p>Not less than 1/2" gypsum board applied to the garage side</p> <p><u>Minimum 5/8" Type X gypsum board applied to the garage side</u></p>

R303.9 Required heating and cooling. When the winter design temperature in Table R301.2(1) is below 60°F (16°C). Every *dwelling unit* shall be provided with heating and cooling facilities capable of maintaining a minimum room temperatures between of 70°F(21°C) 68°F (20°C) and 90°F (50°C) at a point 3 feet (914 mm) above the floor and 2 feet (610 mm) from exterior walls in all habitable rooms at the design temperature. The installation of one or more portable space heaters or portable space coolers shall not be used to achieve compliance with this section.

SECTION R309 GARAGES AND CARPORTS

Section 309.5 Fire Sprinklers.

DELETE section in its entirety.

SECTION R313 AUTOMATIC FIRE SPRINKLER SYSTEMS

DELETE section in its entirety.

SECTION R322 FLOOD-RESISTANT CONSTRUCTION

R322.1 General. Buildings and structures constructed in whole or in part in flood hazard areas (including A or V Zones) as established in Table R301.2(1) shall be designed and constructed in accordance with Section R322 the regulations of the Maricopa County Flood Control District. Buildings and structures located in whole or in part in identified floodways shall be designed and constructed in accordance with ASCE 24.

Proposed 2012 International Residential Code Appendix E Local Amendment

DELETE this appendix in its entirety and REPLACE as follows:

See State Office of Manufactured Housing Regulations

Proposed 2012 International Residential Code Appendix I Local Amendment

DELETE this appendix in its entirety and REPLACE as follows:

See State Department of Environmental Quality Regulations.

Proposed 2012 International Residential Code Appendix G Local Amendment

SWIMMING POOLS, SPAS AND HOT TUBS

SECTION AG101 GENERAL

AG101.1 General.

The provisions of this appendix shall control the design and construction of swimming pools, spas and hot tubs installed in or on the lot of a one- and two-family dwelling.

SECTION AG102 DEFINITIONS

AG102.1 General.

For the purposes of these requirements, the terms used shall be defined as follows and as set forth in Chapter 2.

ABOVE-GROUND/ON-GROUND POOL. See "Swimming pool"

BARRIER. A fence, wall, building wall or combination thereof which completely surrounds the swimming pool and obstructs access to the swimming pool.

HOT TUB. See "Swimming pool."

IN-GROUND POOL. See "Swimming pool."

RESIDENTIAL. That which is situated on the premises of a detached one- or two-family dwelling or a one-family townhouse not more than three stories in height.

SPA, NONPORTABLE. See "Swimming pool."

SPA, PORTABLE. A nonpermanent structure intended for recreational bathing, in which all controls, water-heating and water-circulating equipment are an integral part of the product.

SWIMMING POOL. Any structure intended for swimming or recreational bathing that contains water over 18 inches (457 mm) deep at any point, and, other than hot tubs and spas is wider than 8 feet (2400 mm) at any point. This includes in-ground, above ground and on-ground swimming pools and, other than the width, hot tubs and spas.

SWIMMING POOL, INDOOR. A swimming pool which is totally contained within a structure and surrounded on all four sides by walls of said structure.

SWIMMING POOL, OUTDOOR. Any swimming pool which is not an indoor pool.

SECTION AG103 SWIMMING POOLS

AG103.1 In-ground pools.

In-ground pools shall be designed and constructed in conformance with ANSI/NSPI-5 as listed in Section AG107.

AG103.2 Above-ground and on-ground pools.

Aboveground and on-ground pools shall be designed and constructed in conformance with ANSI/NSPI-4 as listed in Section AG107.

SECTION AG104 SPAS AND HOT TUBS

AG104.1 Permanently installed spas and hot tubs.

Permanently installed spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-3 as listed in Section AG107.

AG104.2 Portable spas and hot tubs.

Portable spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-6 as listed in Section AG107.

SECTION AG105 BARRIER REQUIREMENTS

AG105.1 Application.

The provisions of this chapter shall control the design of barriers for residential swimming pools, spas and hot tubs. These design controls are intended to provide protection against potential drownings and near-drownings by restricting access to swimming pools, spas and hot tubs.

AG105.2 Outdoor swimming pool.

An outdoor swimming pool, including an in-ground, above-ground or on-ground pool, hot tub or spa shall be provided with a barrier which shall comply with the following:

1. The top of the barrier shall be at least 48 inches (1219 mm) above grade measured on the side of the barrier which faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches (51 mm) measured on the side of the barrier which faces away from the swimming pool. Where the top of the pool structure is above grade, such as an aboveground pool, the barrier may be at ground level, such as the pool structure, or mounted on top of the pool structure. Where the barrier is mounted on top of the pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches (102 mm). Any decorative design work on a barrier located entirely upon the subject parcel, and on the side away from the swimming pool, such as protrusions, indentations, or cutouts or other fixed or moveable, attached or unattached objects within 24 inches of the pool barrier, which render the barrier easily climbable, are prohibited. The wall, fence, or barrier shall be at least 20 inches from the water's edge.
2. Openings in the barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.
3. Solid barriers which do not have openings, such as a masonry or stone wall, shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.
4. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1.75 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.
5. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.
6. Chain link fencing shall not be used as a barrier.
7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall not be more than 1.75 inches (44 mm).
8. Access gates shall comply with the requirements of Section AG105.2, Items 1 through 7, and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the gate, the release mechanism and openings shall comply with the following:
 - 8.1. The release mechanism shall be located on the pool side of the gate at least 5 inches (125 mm) below the top of the gate, and
 - 8.2. The gate and barrier shall have no opening greater than 0.5 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.

8.3. All pedestrian access gates and any other access gates shall have a sign attached to both sides of the gate stating the following: "Protect your children, Keep Gate Closed". Details of minimum sign size, letter type, and color and other specifications of the sign shall be provided by the Building Safety Division.

9. Where a wall of a dwelling serves as part of the barrier one of the following conditions shall be met:

9.1. The pool shall be equipped with a powered safety cover in compliance with ASTM F1346; or

9.2. Openings in the wall of the residence or living area which constitute part of the barrier will be protected in the following ways:

9.2.1 Doors will be protected in the following ways:

9.2.1.1 Add self-closing, self latching devices installed on all doors with direct access to the pool area, with the release mechanism located minimum of 54 inches above the floor.

9.2.1.2 An alarm shall be installed on all doors with direct access to the pool. The alarm shall sound continuously for a minimum of 30 seconds within seven seconds after the door is opened, and be capable of being heard throughout the house during normal household activities. The alarm shall automatically reset under all conditions. The alarm system shall be equipped with a manual means, such as touchpad or switch, to temporarily deactivate the alarm for a single opening. Such deactivation shall last for not more than 15 seconds. The deactivation switch(es) shall be located at least 54 inches (1372 mm) above the threshold of the door.

9.2.1.3 Pet doors which provide direct access to the pool are prohibited.

Exception: ~~Pet doors fitted with a permanent barrier in compliance with AG105.2, Item 2.~~

9.2.2 Windows with access to the pool area shall be protected in the following ways:

9.2.2.1 Emergency escape or rescue windows from sleeping areas with access to the swimming pool will be equipped with a latching device not less than 54 inches above the floor.

9.2.2.2 All other openable windows with similar access will also be equipped with a latching device not less than 54 inches above the floor or shall be equipped with a key-lock device that prevents opening the window more than 4 inches.

9.3. Other means of protection, such as self-closing doors with self-latching devices, which are approved by the governing body, shall be acceptable so long as the degree of protection afforded is not less than the protection afforded by Item 9.1 or 9.2 described above.

10. Where an aboveground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure, and the means of access is a ladder or steps, then:

10.1. The ladder or steps shall be capable of being secured, locked or removed to

prevent access, or 10.2. The ladder or steps shall be surrounded by a barrier which meets the requirements of Section AG105.2, Items 1 through 9. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch-diameter (102 mm) sphere.

AG105.3 Indoor swimming pool. All walls surrounding an indoor swimming pool shall comply with Section AG105.2, Item 9.

AG105.4 Prohibited locations. Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

AG105.5 Barrier exceptions. Spas or hot tubs with a safety cover which complies with ASTM F 1346, as listed in Section AG107, shall be exempt from the provisions of this appendix.

AG 105.6 Retroactivity. The owner of every dwelling with an existing swimming pool or spa which was constructed prior to the effective date of this Appendix G (amended) and to which this Appendix would otherwise apply, must comply with this Appendix not later than one year after the effective date of this Appendix.

AG105.7 Duty to comply. Every person who owns, rents, occupies, or controls a swimming pool or spa to which this Appendix G (amended) applies, shall comply with all the provisions of this Appendix at all times.

AG105.7.1 No person shall construct a swimming pool or spa to which this Appendix applies in a manner, which is not in compliance with this Appendix. No person shall remove, alter, disable, render inoperable, or change, either temporarily or permanently, any device or structure installed or constructed in accordance with this Appendix, in such a manner that the device or structure or the barrier to which it is attached or of which it is a part, is no longer in compliance with this Appendix.

AG105.7.2 Every person who contracts to build a swimming pool or spa to which this Appendix applies, or who contracts to sell, lease or rent a dwelling with a swimming pool or spa to which this Appendix applies, shall, at the time of executing the contract, give to the buyer, lessee, or renter, a copy of this Appendix.

AG105.8 Violations and Penalties. Every person who violates any provision of this Appendix G (amended) is guilty of a misdemeanor, and upon conviction shall be punished by imprisonment for up to six months, or by a fine of not more than two thousand five hundred dollars, or both such fine and imprisonment.

Proposed 2012 International Residential Code Appendix K Local Amendment

SOUND TRANSMISSION

Appendix K SOUND TRANSMISSION

AK102.2. Sound Attenuation. In order to achieve an interior noise level of 45 decibels, all residences shall be constructed using the following minimum construction standards:

1. Exterior wall penetrations by pipe ducts or conduits shall be sealed.
2. Mail boxes shall not be used through the door or wall.
3. Windows shall have 2 panes of glass and a sound transmission rating of STC-22. All operable windows shall be weather stripped and air tight in accordance with ASTM E-283-84-T Standard. Perimeter window frames" shall be sealed.
4. All exterior side hinge doors shall be solid core wood or insulated hollow metal, at least 1 1/2 inches thick and fully weather stripped. All exterior doors other than side hinge doors shall be solid wood, foam filled fiberglass or metal construction.
5. Fireplaces shall be provided with well fitting dampers.
6. Exterior walls shall achieve a minimum overall thermal resistance rating of 19 1/8.
7. All roof spaces shall achieve a minimum overall thermal resistance rating of 30.

AK1 02.2.1. Certification. A certified statement by a licensed architect or engineer certifying that the residence achieves the requirement of a maximum interior noise level of 45 decibels is required for all construction. The certified statement shall include documentation supporting the statement.

Exception. Construction outside the areas designated as having a day-night average sound level 65 decibels or higher as determined by the use of the 1988 noise contour lines developed by the Maricopa County Association of Governments that complies with the construction standards of Section 1206.4.1 shall be deemed to have achieved the interior noise level of 45 decibels, and shall not require the certified statement"

Proposed 2012 International Residential Code Appendix M Local Amendment

SOLAR PHOTOVOLTAIC POWER SYSTEMS

SECTION AM101

SOLAR PHOTOVOLTAIC POWER SYSTEMS

AM101 Installation of solar photovoltaic power systems. Solar photovoltaic power systems shall be installed in accordance with Sections AM101 through AM101.4, the *International Building Code* and NFPA 70.

Exception: Detached, non-habitable Group U structures including, but not limited to, parking shade structures, carports, solar trellises and similar structures shall not be subject to the requirements of this section.

AM101.1 Marking. Marking is required on interior and exterior direct -current (DC) conduit, enclosures, raceways, cable assemblies, junction boxes, combiner boxes and disconnects.

AM101.1.1 Materials. The materials used for marking shall be reflective, weather resistant and suitable for the environment. Marking as required in Sections AM101.1.2 through AM101.1.4 shall have all letters capitalized with a minimum height of 3/8 inch (9.5 mm) white on red background.

AM101.1.2 Marking content. The marking shall contain the words "WARNING: PHOTOVOLTAIC POWER SOURCE."

AM101.1.3 Main service disconnect. The marking shall be placed adjacent to the main service disconnect in a location clearly visible from the location where the disconnect is operated.

AM101.1.4 Location of marking. Marking shall be placed on interior and exterior DC conduit, raceways, enclosures and cable assemblies every 10 feet (3048 mm), within 1 foot (305 mm) of turns or bends and within 1 foot (305 mm) above and below penetrations of roof/ceiling assemblies, walls or barriers.

AM101.2 Locations of DC conductors. Conduit, wiring systems, and raceways for photovoltaic circuits shall be located as close as possible to the ridge or hip or valley and from the hip or valley as directly as possible to an outside wall to reduce trip hazards and maximize ventilation opportunities. Conduit runs between sub arrays and to DC combiner boxes shall be installed in a manner that minimizes the total amount of conduit on the roof by taking the shortest path from the array to the DC combiner box. The DC combiner boxes shall be located such that conduit runs are minimized in the pathways between arrays. DC wiring shall be installed in metallic conduit or raceways when located within enclosed spaces in a building. Conduit shall run along the bottom of load bearing members.

AM101.3 Access and pathways. Roof access, pathways, and spacing requirements shall be provided in accordance with Sections AM101.3.1 through AM101.3.3.3.

Exceptions:

1. Residential structures shall be designed so that each photovoltaic array is no greater than 150 feet (45 720 mm) by 150 feet (45 720 mm) in either axis.
2. Panels/modules shall be permitted to be located up to the roof ridge where an alternative ventilation method approved by the fire chief has been provided or where the fire chief has determined vertical ventilation techniques will not be employed.

AM101.3.1 Roof access points. Roof access points shall be located in areas that do not require the placement of ground ladders over openings such as windows or doors, and located at strong points of building construction in locations where the access point does not conflict with overhead obstructions such as tree limbs, wires, or signs.

AM101.3.2 Residential systems for one- and two- family dwellings. Access to residential systems for one- and two-family dwellings shall be provided in accordance with Sections AM101.3.2.1 through AM101.3.2.4.

AM101.3.2.1 Residential buildings with hip roof layouts. Panels/modules installed on residential buildings with hip roof layouts shall be located in a manner that provides a 3-foot-wide (914 mm) clear access pathway from the eave to the ridge on each roof slope where panels/modules are located. The access pathway shall be located at a structurally strong location on the building capable of supporting the live load of fire fighters accessing the roof.

Exception: These requirements shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

AM101.3.2.2 Residential buildings with a single ridge. Panels/modules installed on residential buildings with a single ridge shall be located in a manner that provides two, 3-foot-wide (914 mm) access pathways from the eave to the ridge on each roof slope where panels/modules are located.

Exception: This requirement shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

AM101.3.2.3 Residential buildings with roof hips and valleys. Panels/modules installed on residential buildings with roof hips and valleys shall be located no closer than 18 inches (457 mm) to a hip or a valley where panels/modules are to be placed on both sides of a hip or valley. Where panels are to be located on only one side of a hip or valley that is of equal length, the panels shall be permitted to be placed directly adjacent to the hip or valley.

Exception: These requirements shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

AM101.3.2.4 Residential building smoke ventilation. Panels/modules installed on residential buildings shall be located no higher than 3 feet (914 mm) below the ridge in order to allow for fire department smoke ventilation operations.

AM101.3.3 Other than residential buildings. Access to systems for occupancies other than one- and two family dwellings shall be provided in accordance with Sections AM101.3.3.1 through AM101.3.3.3.

Exception: Where it is determined by the *building code official* that the roof configuration is similar to that of a one- or two-family dwelling, the residential access and ventilation requirements in Sections AM101.3.2.1 through AM101.3.2.4 shall be permitted to be used.

AM101.3.3.1 Access. There shall be a minimum 6-1 foot-wide (1829 mm) clear perimeter around the edges of the roof.

Exception: Where either axis of the building is 250 feet (76 200 mm) or less, there shall be a minimum 4-foot-wide (1290 mm) clear perimeter around the edges of the roof.

AM101.3.3.2 Pathways. The solar installation shall be designed to provide designated pathways. The pathways shall meet the following requirements:

- 1. The pathway shall be over areas capable of supporting the live load of fire fighters accessing the roof.**
- 2. The centerline axis pathways shall be provided in both axes of the roof. Centerline axis pathways shall run where the roof structure is capable of supporting the live load of fire fighters accessing the roof.**
- 3. Shall be a straight line not less than 4 feet (1290 mm) clear to skylights or ventilation hatches.**
- 4. Shall be a straight line not less than 4 feet (1290 mm) clear to roof standpipes.**

5. Shall provide not less than 4 feet (1290 mm) clear around roof access hatch with at least one not less than 4 feet (1290 mm) clear pathway to parapet or roof edge.

AM101.3.3.3 Smoke ventilation. The solar installation shall be designed to meet the following requirements:

1. Arrays shall be no greater than 150 feet (45 720 mm) by 150 feet (45 720 mm) in distance in either axis in order to create opportunities for fire depm1ment smoke ventilation operations.
2. Smoke ventilation options between array sections shall be one of the following:
 - 2.1. A pathway 8 feet (2438 mm) or greater in width.
 - 2.2. A 4-foot (1290 mm) or greater in width pathway and bordering roof skylights or smoke and heat vents.
 - 2.3. A 4-foot (1290 mm) or greater in width pathway and bordering 4-foot by 8-foot (1290 mm by 2438 mm) "venting cutouts" every 20 feet (6096 mm) on alternating sides of the pathway.

AM101.4 Ground-mounted photovoltaic arrays. Ground-mounted photo voltaic arrays shall comply with Sections AM101 through AM101.2 and this section. Setback requirements shall not apply to ground-mounted, free-standing photovoltaic arrays. A clear, brush-free area of 10 feet (3048 mm) shall be required for ground mounted photovoltaic arrays.

Proposed 2012 International Plumbing Code Local Amendments

403.2 Separate Facilities. Where plumbing fixtures are required, separate facilities shall be provided for each sex

Exceptions:

1. Separate facilities shall not be required for dwelling units and sleeping units.
2. Separate facilities shall not be required in structures or tenant spaces with a total occupant load, including both employees and customers, of 15 or fewer.
3. Separate facilities shall not be required in mercantile and business occupancies in which the maximum occupant load is 50 100 or fewer.

Section 405.3.1

Exception. Side Clearances for accessible or ambulatory water closets shall comply with ICC/ANSI A117.1.

Section 410.3 Substitution. Where restaurants provide drinking water in a container free of charge, drinking fountains shall not be required in those restaurants. ~~In other occupancies, where drinking fountains are required, water coolers or bottled water dispensers shall be permitted to be substituted for not more than 50 percent of the required number of drinking fountains.~~ In other occupancies, where drinking fountains are required, bottle water dispensers or water coolers shall be permitted to be substituted.

Proposed 2012 International Mechanical Code Local Amendments

307.2.2 Drain pipe materials and sizes. Components of the condensate disposal system shall be cast iron, galvanized steel, copper, cross-linked polyethylene, polybutylene, polyethylene, ABS, CPVC or PVC pipe or tubing. ~~Nonmetallic piping shall not be installed in exposed locations.~~ All components shall be selected for the pressure and temperature rating of the installation. Joints and connections shall be made in accordance with the applicable provisions of Chapter 7 of the International Plumbing Code relative to the material type. Condensate waste and drain line size shall be not less than 3/4-inch (19 mm) internal diameter and shall not decrease in size from the drain pan connection to the place of condensate disposal. Where the drain pipes from more than one unit are manifolded together for condensate drainage, the pipe or tubing shall be sized in accordance with Table 307.2.2.

[B] 309.1 Space-heating systems. Heating and Cooling systems. Habitable spaces Interior spaces intended for human occupancy shall be provided with active or passive space-heating and space-cooling systems capable of maintaining a minimum indoor temperatures ~~between 70 of 68°F (201°C) and 90°F (32°C)~~ at a point 3 feet (914 mm) above the floor on the design heating day. The installation of portable space heaters or coolers shall not be used to achieve compliance with this section.

Exception: Space heating and cooling systems are not required for interior spaces where the primary purpose is not associated with human comfort.

403.7 Balancing. The *ventilation air* distribution system shall be provided with means to adjust the system to achieve at least the minimum ventilation airflow rate as required by Sections 403.3 and 403.4. Ventilation systems shall be balanced Sections 403.3 and 403.4. using a nationally accepted air balancing test by an *approved* method. Such balancing shall verify that the ventilation system is capable of supplying and exhausting the airflow rates required by A final report shall be provided to the engineer of record and the mechanical inspector.

Exception: Residential occupancies shall be exempt from this provision.

502.14 Motor vehicle operation. In areas where motor vehicles operate, mechanical ventilation shall be provided in accordance with Section 403. Additionally, areas in which stationary motor vehicles are operated shall be provided with a *source capture system* that connects directly to the motor vehicle exhaust systems. Makeup air for the required exhaust systems in areas where motor vehicles operate shall be provided through permanent unobstructed openings to the outdoors, such as louvers and grills. Mechanical equipment and louvers used for makeup air purposes shall be electrically interlocked with the exhaust system.

Exceptions:

1. This section shall not apply where the motor vehicles being operated or repaired are electrically powered.
2. This section shall not apply to one- and two-family dwellings.

3. This section shall not apply to motor vehicle service areas where engines are operated inside the building only for the duration necessary to move the motor vehicles in and out of the building.

SECTION 929

WOODSTOVE/FIREPLACE INSTALLATION

929.1 Definitions. For purposes of this section, the following words and terms shall have the meaning ascribed thereto:

Fireplace: A built-in-place masonry hearth and fire chamber or a factory-built appliance, designed to burn solid fuel or to accommodate gas or electric log insert or similar device, and which is intended for occasional recreational or aesthetic use, not for cooking, heating, or industrial processes.

Solid fuel: Includes, but is not limited to, wood, coal, or other non-gaseous or non-liquid fuels, including those fuels defined by the Maricopa County Air Pollution Control Officer as "inappropriate fuel" to burn in residential wood burning devices.

Woodstove: A solid-fuel burning heating appliance including a pellet stove, which is either freestanding or designed to be inserted into a fireplace.

929.2 General. In accordance with Maricopa County regulations, on or after December 31, 1998, no person, firm or corporation shall construct or install a fireplace or a wood stove, and the Building Official shall not approve or issue a permit to construct or install a fireplace or a wood stove, unless the fireplace or wood stove complies with one of the following:

1. A fireplace which has a permanently installed gas or electric log insert;
2. A fireplace, wood stove or other solid fuel burning appliance which has been certified by the United States Environmental Protection Agency as conforming to 40 Code of Federal Regulations part 60, subpart AAA;
3. A fireplace, woodstove or other solid fuel burning appliance that has been tested and listed by a nationally recognized testing agency to meet performance standards equivalent to those adopted by 40 Code of Federal Regulations part 60, subpart AAA;
4. A fireplace, wood stove or other solid fuel burning appliance which has been determined by the Maricopa County Air Pollution Control Officer to meet performance standards equivalent to those adopted by 40 Code of Federal Regulations part 60, subpart AAA, as in effect on July 1, 1990.
5. A fireplace which has a permanently installed wood stove insert which complies with subparagraph 2, 3, or 4 above.

Exceptions: The following installations are not regulated and are not prohibited by this section:

1. Furnaces, boilers, incinerators, kilns, and other similar space heating or industrial process equipment.
2. Cook stoves, barbecue grills, and similar appliances designed primarily for cooking.
3. Fire pits, barbecue grills, and other outdoor fireplaces.

Proposed 2012 International Fuel Gas Code Local Amendment

404.12 Minimum burial depth. Underground piping systems shall be installed a minimum depth of 12 inches (305 mm) below grade, ~~except as provided for in Section 404.12.1 for metal piping and 18 inches (457mm) for plastic piping.~~

404.12.1 Individual outside appliances. Individual lines to outside lights, grills or other appliances shall be installed a minimum of 8 inches (203 mm) below finished grade, provided that such installation is ~~approved and is installed in locations not susceptible to physical damage.~~

Proposed 2012 International Energy Conservation Code Local Amendments

SECTION C101 SCOPE AND GENERAL REQUIREMENTS (COMMERCIAL)

C101.2 Scope. This code applies to *commercial buildings* and the building sites and associated systems and equipment. Group R-2 when defined as a *Commercial Building* by section C202, shall have the option of complying under the Residential Provisions of the code, regardless of height. Once defined as such on the submittal documents, all components of the Residential Provisions shall be followed.

SECTION R101 SCOPE AND GENERAL REQUIREMENTS (RESIDENTIAL)

R101.2 Scope. This code applies to *residential buildings* and the building sites and associated systems and equipment. Group R-2 when defined as a *Residential Building* by section R202, shall have the option of complying under the Commercial Provisions of the code, regardless of height. Once defined as such on the submittal documents, all components of the Commercial Provisions shall be followed.

SECTION R102 ALTERNATE MATERIALS-METHOD OF CONSTRUCTION, DESIGN OR INSULATING SYSTEMS

Section R102.1

RESNET Testing & Inspection Protocol. The Residential Energy Services Network (RESNET) Mortgage Industry National Home Energy Rating System Standards Protocol for third party testing and inspections, shall be deemed to meet the requirements of sections R402.4.1.1, R402.4.1.2 and R403.2.2, and shall meet the following conditions:

1. Third Party Testing and Inspections shall be completed by RESNET certified Raters or Rating Field Inspectors and shall be subject to RESNET Quality Assurance Field Review procedures.
2. Sampling in accordance with Chapter 6 of the RESNET Standards shall be performed by Raters or Rating Field Inspectors working under a RESNET Accredited Sampling Provider.
3. Third Party Testing is required for the following items:
 - a. 402.4.1.1 –Building Envelope – Thermal and Air Barrier Checklist
 - b. R402.4.1.2 –Testing – Air Leakage Rate
 - c. R403.2.2 – Sealing – Duct Tightness
4. The other requirements identified as “mandatory” in Chapter 4 shall be met.
5. Alternate testing and inspection programs and protocols shall be allowed when approved by the Code Official.

CHAPTER 4 RESIDENTIAL ENERGY EFFICIENCY

SECTION R401 GENERAL

R401.1 Scope. This chapter applies to residential buildings.

R401.2 Compliance. Projects shall comply with Sections identified as “mandatory” and with either sections identified as “prescriptive” or the performance approach in Section R405.

R401.2.1 Alternative approach for compliance. A Home Energy Rating System (“HERS”) Index of 73 or less, confirmed in writing by a Residential Energy Services Network certified energy rater may be used in place of the approach described in section 401.2 above. Compliance may be demonstrated by sampling in accordance with Chapter 6 of the Mortgage Industry National Home Energy Rating Systems Standard as adopted by the Residential Energy Services Network.

SECTION R403 SYSTEMS

R403.2 Ducts. Ducts and air handlers shall be in accordance with Sections R403.2.1 through R403.2.3.

R403.2.1 Insulation (Prescriptive). Supply ducts in attics shall be insulated to a minimum of R-8. Ducts in floor trusses shall be insulated to a minimum of R-6.

Exceptions: Ducts or portions thereof located completely inside the building thermal envelope.

1. Ducts or portions thereof located completely inside the building thermal envelope.

2. Supply ducts may be insulated to a minimum of R-6 when one or more of the following conditions are met;

2.1 Minimum SEER rating of space heating/cooling system is increased to 15.

2.2 Maximum U-factor is decreased to 0.35 and maximum SHGC is decreased to 0.22 for all fenestration products.

2.3 Wall cavity insulation minimum R-value is increased to R-19.

2.4 Residential buildings that meet the requirements of sections R102.1.1 or R405.

Section R403.9.3 ~~Covers~~ Variable Speed Pool Pumps

R403.9.3 ~~Heated pools and in-ground permanently installed spas shall be provided with a vapor-resistant cover.~~

Exception: ~~Pools deriving over 70% of the energy for heating from site-recovered energy, such as a heat pump or solar energy source computed over an operating season.~~

Motors with a total horsepower of one or more for pools and in-ground permanently installed spas shall have the capability of operating at two or more speeds with a low speed having a rotation rate that is no more than one-half of the motor's maximum rotation rate and shall be operated with a pump control with the capability of operating the pump at two or more speeds. Residential pool pump motor controls that are sold for use with a two or more speed motor shall have a default circulation speed setting no more than one-half of the motor's maximum rotation rate. Any high speed override capability shall be for a temporary period not to exceed one twenty-four hour cycle without resetting to the default setting.

Proposed 2011 National Electric Code Local Amendment

Article 250 – Grounding and Bonding

250.118 Types of Equipment Grounding Conductors.

The equipment grounding conductor run with or enclosing the circuit conductors shall be one or more or a combination of the following:

- (1) A copper, aluminum, or copper-clad aluminum conductor. This conductor shall be solid or stranded; insulated, covered, or bare; and in the form of a wire or a busbar of any shape.
- (2) Rigid metal conduit.
- (3) Intermediate metal conduit.
- (4) Electrical metallic tubing with an additional equipment grounding conductor.
- (5) Listed flexible metal conduit meeting all the following conditions:
 - a. The conduit is terminated in listed fittings.
 - b. The circuit conductors contained in the conduit are protected by overcurrent devices rated at 20 amperes or less.

c. The combined length of flexible metal conduit and flexible metallic tubing and liquidtight flexible metal conduit in the same ground-fault current path does not exceed 1.8 m (6 ft).

d. If used to connect equipment where flexibility is necessary to minimize the transmission of vibration from equipment or to provide flexibility for equipment that requires movement after installation, an equipment grounding conductor shall be installed.

(6) Listed liquidtight flexible metal conduit meeting all the following conditions:

a. The conduit is terminated in listed fittings.

b. For metric designators 12 through 16 (trade sizes 3/8 through 1/2), the circuit conductors contained in the conduit are protected by overcurrent devices rated at 20 amperes or less.

c. For metric designators 21 through 35 (trade sizes 3/4 through 1-1/4), the circuit conductors contained in the conduit are protected by overcurrent devices rated not more than 60 amperes and there is no flexible metal conduit, flexible metallic tubing, or liquidtight flexible metal conduit in trade sizes metric designators 12 through 16 (trade sizes 3/8 through 1/2) in the ground-fault current path.

d. The combined length of flexible metal conduit and flexible metallic tubing and liquidtight flexible metal conduit in the same ground-fault current path does not exceed 1.8 m (6 ft).

e. If used to connect equipment where flexibility is necessary to minimize the transmission of vibration from equipment or to provide flexibility for equipment that requires movement after installation, an equipment grounding conductor shall be installed.

(7) Flexible metallic tubing where the tubing is terminated in listed fittings and meeting the following conditions:

a. The circuit conductors contained in the tubing are protected by overcurrent devices rated at 20 amperes or less.

b. The combined length of flexible metal conduit and flexible metallic tubing and liquidtight flexible metal conduit in the same ground-fault current path does not exceed 1.8 m (6 ft).

(8) Armor of Type AC cable as provided in 320.108.

(9) The copper sheath of mineral-insulated, metal-sheathed cable.

(10) Type MC cable that provides an effective ground-fault current path in accordance with one or more of the following:

a. It contains an insulated or uninsulated equipment grounding conductor in compliance with 250.118(1)

b. The combined metallic sheath and uninsulated equipment grounding/bonding conductor of interlocked metal tape-type MC cable that is listed and identified as an equipment grounding conductor

c. The metallic sheath or the combined metallic sheath and equipment grounding conductors of the smooth or corrugated tube-type MC cable that is listed and identified as an equipment grounding conductor

(11) Cable trays as permitted in 392.10 and 392.60.

(12) Cablebus framework as permitted in 370.3.

(13) Other listed electrically continuous metal raceways and listed auxiliary gutters.

(14) Surface metal raceways listed for grounding.

Proposed 2012 International Green Construction Code Local Amendments

SECTION 101 GENERAL

101.2 General. The use of this code is optional, unless specifically required through ordinance by the City of Surprise. This code is an overlay document to be used in conjunction with the other codes and standards adopted by the jurisdiction. This code is not intended to be used as a standalone construction regulation document and permits are not to be issued under this code. This code is not intended to abridge or supersede safety, health or environmental requirements under other applicable codes or ordinances.